

**METHOD AND APPARATUS FOR PROVIDING
PLURAL FLOW PATHS AT A LATERAL JUNCTION**

CROSS-REFERENCE TO RELATED APPLICATION

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[01] This is a continuation-in-part of U.S. Serial No. 09/789,187, filed February 20, 2001, now U.S. 6,568,469 which is a continuation-in-part of U.S. Serial No. 09/196,495, filed November 19, 1998. now U.S. 6,209,648

TECHNICAL FIELD

[02] The invention relates generally to connecting a main well bore and a lateral branch.

BACKGROUND

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[03] In the field of multilateral construction and production operations, an important attribute of a junction is the connectivity of the lateral branch with the main bore. Partial or total loss of connectivity of the main bore with a lateral branch may cause fluid production loss. Major connectivity problems may also result in partial or total obstruction of the main or lateral bore at the level of the lateral junction. The consequences are a substantial penalty to the operator of a well in the form of lost opportunity, increased operating cost, or lost production. The root cause of not being able to achieve or maintain connectivity at a lateral junction can be divided into two general areas: mechanical integrity problems and production of solids from formation surrounding the junction.

[04] With some lateral connection assemblies, reliance is made on cement or other filler material to retain the position of the junction. However, cement may not provide sufficient structural integrity, particularly when the formation shifts due to production of fluids, which may crack or fracture the cement. Also, some lateral connection assemblies do not provide adequate sealing against solids (e.g., sand or other debris) in the surrounding formation. As a result, solids may enter the production path, which are produced as contaminants to the surface. The presence of contaminants may damage production equipment. Also, well operation costs may be increased due to the need to dispose such contaminants.

[05] In a well having at least one lateral branch and a main well bore, the issue of controlling